

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/550,754A  
Source: IFWP  
Date Processed by STIC: 8/9/06

# ***ENTERED***



IFWP

## RAW SEQUENCE LISTING

DATE: 08/09/2006

PATENT APPLICATION: US/10/550,754A

TIME: 10:25:57

Input Set : F:\SONN076.APP.txt

Output Set: N:\CRF4\08092006\J550754A.raw

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3 <110> APPLICANT: BUSCHLE, MICHAEL
4     HABEL, ANDRE
5     FRITZ, JORG
6     PRINZ, KARIN
7     LINGNAU, KAREN
9 <120> TITLE OF INVENTION: IMPROVED VACCINES
11 <130> FILE REFERENCE: SONN:076US
13 <140> CURRENT APPLICATION NUMBER: 10/550,754A
14 <141> CURRENT FILING DATE: 2005-09-23
16 <150> PRIOR APPLICATION NUMBER: PCT/EP2004/003002
17 <151> PRIOR FILING DATE: 2004-03-22
19 <150> PRIOR APPLICATION NUMBER: EP 03450072.8
20 <151> PRIOR FILING DATE: 2003-03-24
22 <150> PRIOR APPLICATION NUMBER: EP 03450084.3
23 <151> PRIOR FILING DATE: 2003-04-11
25 <150> PRIOR APPLICATION NUMBER: EP 03450171.89
26 <151> PRIOR FILING DATE: 2003-07-11
28 <160> NUMBER OF SEQ ID NOS: 20
30 <170> SOFTWARE: PatentIn Ver. 2.1
32 <210> SEQ ID NO: 1
33 <211> LENGTH: 9
34 <212> TYPE: PRT
35 <213> ORGANISM: Artificial Sequence
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38 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
39     Peptide
41 <220> FEATURE:
42 <221> NAME/KEY: MOD_RES
43 <222> LOCATION: (1)..(9)
44 <223> OTHER INFORMATION: xaa = can be any naturally occurring amino acid
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48     1             5
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56 <220> FEATURE:
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58     Peptide
60 <220> FEATURE:
61 <221> NAME/KEY: MOD_RES
62 <222> LOCATION: (1)..(10)

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63 <223> OTHER INFORMATION: xaa = can be any naturally occurring amino acid
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67      1              5              10
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71 <211> LENGTH: 11
72 <212> TYPE: PRT
73 <213> ORGANISM: Artificial Sequence
75 <220> FEATURE:
76 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
77      Peptide
79 <220> FEATURE:
80 <221> NAME/KEY: MOD_RES
81 <222> LOCATION: (1)..(11)
82 <223> OTHER INFORMATION: xaa = can be any naturally occurring amino acid
84 <400> SEQUENCE: 3
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86      1              5              10
89 <210> SEQ ID NO: 4
90 <211> LENGTH: 12
91 <212> TYPE: PRT
92 <213> ORGANISM: Artificial Sequence
94 <220> FEATURE:
95 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
96      Peptide
98 <220> FEATURE:
99 <221> NAME/KEY: MOD_RES
100 <222> LOCATION: (1)..(12)
101 <223> OTHER INFORMATION: xaa = can be any naturally occurring amino acid
103 <400> SEQUENCE: 4
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105     1              5              10
108 <210> SEQ ID NO: 5
109 <211> LENGTH: 13
110 <212> TYPE: PRT
111 <213> ORGANISM: Artificial Sequence
113 <220> FEATURE:
114 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
115     Peptide
117 <220> FEATURE:
118 <221> NAME/KEY: MOD_RES
119 <222> LOCATION: (1)..(13)
120 <223> OTHER INFORMATION: xaa = can be any naturally occurring amino acid
122 <400> SEQUENCE: 5
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124     1              5              10
127 <210> SEQ ID NO: 6
128 <211> LENGTH: 11
129 <212> TYPE: PRT

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130 <213> ORGANISM: Artificial Sequence
132 <220> FEATURE:
133 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
134     Peptide
136 <400> SEQUENCE: 6
137 Lys Leu Lys Leu Leu Leu Leu Lys Leu Lys
138   1             5             10
141 <210> SEQ ID NO: 7
142 <211> LENGTH: 26
143 <212> TYPE: PRT
144 <213> ORGANISM: Artificial Sequence
146 <220> FEATURE:
147 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
148     Peptide
150 <400> SEQUENCE: 7
151 Ile Cys Ile Cys Ile Cys Ile Cys Ile Cys Ile Cys Ile Cys Ile Cys
152   1             5             10             15
154 Ile Cys Ile Cys Ile Cys Ile Cys Ile Cys
155           20             25
158 <210> SEQ ID NO: 8
159 <211> LENGTH: 9
160 <212> TYPE: PRT
161 <213> ORGANISM: Artificial Sequence
163 <220> FEATURE:
164 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
165     Peptide
167 <400> SEQUENCE: 8
168 Gly Leu Cys Thr Leu Val Ala Met Leu
169   1             5
172 <210> SEQ ID NO: 9
173 <211> LENGTH: 10
174 <212> TYPE: PRT
175 <213> ORGANISM: Artificial Sequence
177 <220> FEATURE:
178 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
179     Peptide
181 <400> SEQUENCE: 9
182 Ile Ala Ser Asn Glu Asn Met Glu Thr Met
183   1             5             10
186 <210> SEQ ID NO: 10
187 <211> LENGTH: 9
188 <212> TYPE: PRT
189 <213> ORGANISM: Artificial Sequence
191 <220> FEATURE:
192 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
193     Peptide
195 <400> SEQUENCE: 10
196 Thr Met Leu Tyr Asn Lys Met Glu Phe
197   1             5

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200 <210> SEQ ID NO: 11
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205 <220> FEATURE:
206 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
207     Peptide
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210 Ser Ser Ile Ala Ala Gln Asp Ala Leu
211     1             5
214 <210> SEQ ID NO: 12
215 <211> LENGTH: 9
216 <212> TYPE: PRT
217 <213> ORGANISM: Artificial Sequence
219 <220> FEATURE:
220 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
221     Peptide
223 <400> SEQUENCE: 12
224 Val Thr Ile Leu Asn Leu Ala Leu Leu
225     1             5
228 <210> SEQ ID NO: 13
229 <211> LENGTH: 22
230 <212> TYPE: PRT
231 <213> ORGANISM: Artificial Sequence
233 <220> FEATURE:
234 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
235     Peptide
237 <400> SEQUENCE: 13
238 Lys Phe Pro Gly Gly Gly Gln Ile Val Gly Gly Val Tyr Leu Leu Pro
239     1             5             10             15
241 Arg Arg Gly Pro Arg Leu
242     20
245 <210> SEQ ID NO: 14
246 <211> LENGTH: 14
247 <212> TYPE: PRT
248 <213> ORGANISM: Artificial Sequence
250 <220> FEATURE:
251 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
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254 <400> SEQUENCE: 14
255 Gly Tyr Lys Val Leu Val Leu Asn Pro Ser Val Ala Ala Thr
256     1             5             10
259 <210> SEQ ID NO: 15
260 <211> LENGTH: 9
261 <212> TYPE: PRT
262 <213> ORGANISM: Artificial Sequence
264 <220> FEATURE:
265 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
266     Peptide

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Input Set : F:\SONN076.APP.txt

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268 <400> SEQUENCE: 15
269 Asp Leu Met Gly Tyr Ile Pro Ala Val
270   1           5
273 <210> SEQ ID NO: 16
274 <211> LENGTH: 9
275 <212> TYPE: PRT
276 <213> ORGANISM: Artificial Sequence
278 <220> FEATURE:
279 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
280     Peptide
282 <400> SEQUENCE: 16
283 Cys Ile Asn Gly Val Cys Trp Thr Val
284   1           5
287 <210> SEQ ID NO: 17
288 <211> LENGTH: 23
289 <212> TYPE: PRT
290 <213> ORGANISM: Artificial Sequence
292 <220> FEATURE:
293 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
294     Peptide
296 <400> SEQUENCE: 17
297 His Met Trp Asn Phe Ile Ser Gly Ile Gln Tyr Leu Ala Gly Leu Ser
298   1           5           10           15
300 Thr Leu Pro Gly Asn Pro Ala
301           20
304 <210> SEQ ID NO: 18
305 <211> LENGTH: 9
306 <212> TYPE: PRT
307 <213> ORGANISM: Artificial Sequence
309 <220> FEATURE:
310 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
311     Peptide
313 <400> SEQUENCE: 18
314 Tyr Met Asp Gly Thr Met Ser Gln Val
315   1           5
317 <210> SEQ ID NO: 19
318 <211> LENGTH: 20
319 <212> TYPE: DNA
320 <213> ORGANISM: Artificial Sequence
322 <220> FEATURE:
323 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
324     Primer
326 <220> FEATURE:
W--> 327 <221> NAME/KEY: MOD_BASE
328 <222> LOCATION: (9)
329 <223> OTHER INFORMATION: n = i
331 <400> SEQUENCE: 19
W--> 332 tccatgacnt tcctgatgct
334 <210> SEQ ID NO: 20

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20

RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 08/09/2006  
PATENT APPLICATION:    US/10/550,754A      TIME: 10:25:58

Input Set : F:\SONN076.APP.txt  
Output Set: N:\CRF4\08092006\J550754A.raw

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,3,7,9  
Seq#:2; Xaa Pos. 1,3,8,10  
Seq#:3; Xaa Pos. 1,3,9,11  
Seq#:4; Xaa Pos. 1,3,10,12  
Seq#:5; Xaa Pos. 1,3,11,13  
Seq#:19; N Pos. 9

## VERIFICATION SUMMARY

DATE: 08/09/2006

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Input Set : F:\SONN076.APP.txt

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L:47 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0  
L:66 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0  
L:85 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
L:104 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:123 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0  
L:327 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:19  
L:332 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0